

### PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF BILLINGSLEY ROAD AND ST. PATRICKS DRIVE IN CHARLES COUNTY. BILLINGSLEY ROAD IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

### INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR EASTBOUND BILLINGSLEY ROAD. VIDEO DETECTION WILL BE USED.

### CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

### SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

THE CONTRACTOR SHALL DELIVER THE CONTROLLER, CABINET AND RELATED EQUIPMENT TO THE SHA SIGNAL SHOP AT 7491 CONNELLEY DRIVE, HANOVER MARYLAND 21076 FOR WIRING AND TESTING.

### EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

### EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
1S	MAINTENANCE OF TRAFFIC
4 CY	TEST PIT EXCAVATION
90 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
370 LF	FURNISH AND INSTALL 10 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
25 EA	FURNISH AND INSTALL 12 IN. L.E.D. VEHICULAR SIGNAL HEAD SECTION
3 EA	FURNISH AND INSTALL 8 IN. L.E.D. VEHICULAR SIGNAL HEAD SECTION
2 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM
2 EA	FURNISH AND INSTALL 250 WATT HPSV LUMINAIRE
1 EA	FURNISH AND INSTALL 50 FT. MAST ARM AND POLE
1 EA	FURNISH AND INSTALL TWIN 50 FT./70 FT. MAST ARMS AND POLE
2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA AND CABLE
1 EA	FURNISH AND INSTALL VIDEO INTERFACE EQUIPMENT
1000 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
180 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
120 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
10 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
75 LF	FURNISH AND INSTALL WOOD SIGN SUPPORTS (4 IN. X 6 IN.)
500 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
70 LF	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
1 EA	FURNISH AND INSTALL METERED SERVICE PEDESTAL
75 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 A.W.G.)
10 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
5 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
80 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 A.W.G.)
1770 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 A.W.G.)
600 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 A.W.G.) - TRAY CABLE
1 EA	FURNISH AND INSTALL BASE MOUNTED CABINET AND CONTROLLER
3 EA	FURNISH AND INSTALL D3-2 SINGLE FACE SIGN (VAR. X 16") - MAST ARM MOUNT
2 EA	FURNISH AND INSTALL W3-3 SIGN (48" X 48") WITH "NEW" PANEL (30" X 30") - GROUND MOUNT
1 EA	CUT, CLEAN, GALVANIZE AND CAP MAST ARM
4 EA	NON-INVASIVE MICRO-LOOP PROBE WITH 1000 FT. LEAD-IN
1 EA	4-CHANNEL DETECTOR AMPLIFIER
30 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
2 EA	R3-5R SIGN (30" X 36") - MAST ARM MOUNT

### EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

### PHASE CHART

	1	2	3	4	5	6	7	8
PHASE 1 & 6	G	G	G	R	R	R	R	R
1 & 6 CHANGE	G	G	G	R	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	R	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR

### CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 841-1003	MR. ANDRE FUTRELL ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002
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MR. JOE HORTY  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
(410) 841-1005

### CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630	MR. EUGENE BAILEY CHIEF, SIGN OPERATIONS (410) 787-7676
MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7631	MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7668

MR. ED RODENHIZER  
CHIEF, SIGNAL OPERATIONS  
(410) 787-7652



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

### GENERAL INFORMATION PLAN BILLINGSLEY ROAD AND ST. PATRICKS DR.

**T**RAFFIC **C**ONCEPTS, INC.  
325 Gambrills Road  
Suite E  
Gambrills, MD 21054  
(410) 923-7101  
FAX (410) 923-6473  
EMAIL TRAFFIC@TRAFFIC-CONCEPTS.COM

SCALE	NONE	DATE	11-28-07	CONTRACT NO.	PEM07-031
DESIGNED BY	T. ZAYDEL	COUNTY	CHARLES		
DRAWN BY	T. ZAYDEL	LOGMILE	5.79		
CHECKED BY	K. SCHMID	T.I.M.S. NO.	I-694		
F.A.P. NO.	NA	TOD NO.			
DRAWING NO.	TS - 4634 GI	SHEET NO.	2	OF	2